**Document type:** Software requirements specification

**Model description:** *Daily costs prognosis for production equipment cooling based on outdoor temperature.*

**Model name:** *“Temperature-Costs” model.*

1. **Introduction**

**Content:** Description of customer’s UI and math model it’s based on. Includes mandatory and optional tasks.

**Intended audience:** ‘Tibbo systems’ applicants.

**Target:** Applicants are to confirm theirs AggreGate IoT and Digital Enterprise Platform base knowledge.

1. **Overall model description**

This UI type is in high demand among equipment manufacturers. It provides info based on customer’s gathered costs data for production equipment cooling processed with math algorithm which is suitable for correct evaluation decisions during expense management activity in accordance with weather forecasts for various time spans.

**Operation environment:** AggreGate client software.

1. **Model input data**

**Input data:** customer provides a set of previously gathered corresponding value pairs obtained for a period of time. This data is intended to teach and initiate model’s math algorithm.

**Input data format:** data is imported from .csv file in a text string shaped like ‘temperature’, ‘cost’ duos.

1. **Model output data**

**Model output:** it’s a formula to calculate cooling costs with outdoor temperature passed in as an argument.

1. **Mandatory model features**

**UI:** it’s a graphical user interface which is available in AggreGate client. Main screen has to contain 2 menu tabs. First one is named as model training tab and filled with table to load training data set, start training button, training result table. Second one is named as current data tab and filled with input field for temperature argument, calculations execute button, calculations result field which presents model’s predicted costs for a temperature value entered.

1. **Optional model features**

**UI’s optional task:** current data tab has to be provided with chart showing graph of model’s calculated output function.

**Customer’s optional request:** Model receives real time data about temperature in your city from weather API at a choice. In this case current data tab has to be provided with the real time temperature value field and corresponding field which presents daily model’spredicted costs.